

Nvozymes North America

The claims presented in amendment filed August 26, 2002 were misnumbered. There were two claims numbered 35. Thus, claims 25-46 are pending. Claims 40-46 (numbered 39-45 in the prior amendment) have been cancelled due to the restriction requirement. Claims 25 and 32 have been combined into new claim 47. Claim 26 has been rewritten as claim 48 to address the rejection under 35 U.S.C. 112. Claims 49-58 are identical to claims 27-31, 33, the second claim numbered 35, and 36-38, respectively, except that the term "ammonium source" has been replaced with "ammonium salt".

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

The Rejection of Claim 26 under 35 U.S.C. 112 I.

Claim 2 [sic, claim 26?] is rejected under 35 U.S.C. 112 as being indefinite. Specifically, the Office stated that "Claim 2 [sic, claim 26] is confusing in that the units of the haloperoxidase concentration is not indicated."

As stated above, claim 26 has been rewritten as claim 47 to address this rejection. Applicants therefore submit that this rejection has been overcome.

The Rejection of Claims 25-38 under 35 U.S.C. 103 II.

Claims 25-38 are rejected under 35 U.S.C. 103 as being unpatentable over Allen (U.S. Patent No. 5,389,369) taken with Winkler et al. (U.S. Patent No. 5,928,380) and Cantor et al. (U.S. Patent No. 3,539,520). This rejection is respectfully traversed.

Allen discloses methods and compositions for killing or inhibiting the growth of yeast or sporular microorganisms comprising contacting the microorganisms, with a haloperoxidase, a peroxide, a halide source and at least one antimicrobial activity enhancing agent. Suitable antimicrobial activity enhancing agents are certain alpha-amino acids, which are not salts of $\mathrm{NH_4}^+$.

Winkler et al. disclose a method of treating undyed fabric, garment or yarn in an aqueous medium with an effective amount of a haloperoxidase, a halide source and a hydrogen peroxide source. Winkler et al. further disclose that mono-, di- or triethanolamine may be added to the haloperoxidase composition as a buffer to maintain a suitable pH for the haloperoxidase used (column 5, lines 47-50). However, Winkler et al. do not suggest that mono-, di- or triethanolamine enhances the antimicrobial activity of a haloperoxidase.

Cantor et al. disclose detergent sanitizing compositions containing germicidal quaternary ammonium germicides in combination with a limited class of block polymer nonionic detergents (col. 2, lines 40-50). However, Cantor et al. do not teach or suggest the use of non-germicidal compounds such as salts of NH_4^+ . Furthermore, salts of NH_4^+ are not quaternary ammonium compounds.

Thus, none of the cited references, alone or in combination, teaches or suggests methods and compositions for killing or inhibiting the growth of microorganisms using a salt of $\mathrm{NH_4}^+$, as claimed herein. Moreover, none of the cited references, alone or in combination, teaches or suggests the preferred halide sources and ammonium salts recited in the dependent claims.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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